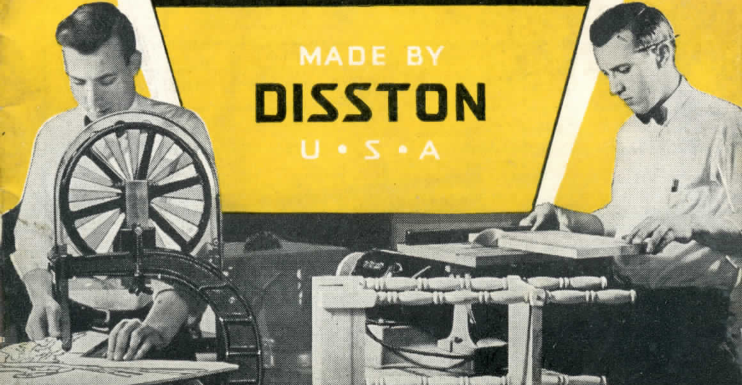
KEYSTONE

SAWS
AND
TOOLS

FOR THE MOTORIZED HOME WORKSHOP

MADE BY
DISSTON
U • S • A



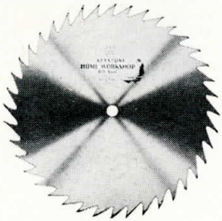
Charlotte Hardware Co.
218 N. College St.
Charlotte, N. C.

KEYSTONE HOME WORK

(for

KEYSTONE HOME WORKSHOP CIRCULAR SAWS are made in four types of flat ground—a cross-cut, a rip and two types of combination. There also is a smooth-cutter, hollow ground, combination saw which will be found especially

K-41, CROSS-CUT



K-121, K-111, RIP

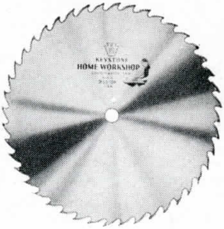
Diameter	Number and Type	Gauge	Center Hole	Price
6″	K-41 Cross-cut	18	½″	$1.20
	K-121 Rip			
	K-321 Combination			
	K-851 Combination			
	K-61 Hollow Ground	19/16	½″	3.00
7″	K-41 Cross-cut	18	½″	1.40
	K-121 Rip			
	K-321 Combination			
	K-851 Combination			
	K-61 Hollow Ground	19/16	½″	3.50
8″	K-41 Cross-cut	18	½″, ⅝″, ¾″	1.60
	K-121 Rip			
	K-321 Combination			
	K-851 Combination			
	K-61 Hollow Ground	19/16	½″, ⅝″, ¾″	4.00
10″	K-41 Cross-cut	16	⅝″, ¾″	2.00
	K-111 Rip			
	K-321 Combination			
	K-851 Combination			
	K-61 Hollow Ground	18/15	⅝″, ¾″	5.00

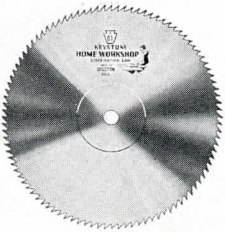
Packed individually in corrugated container.

SHOP CIRCULAR SAWS
Wood)

valuable for smooth cutting either with the grain, across the grain or diagonally. These KEYSTONE Saws are made only in the sizes shown in table on the opposite page.

K-321


K-851


K-61

COMBINATION SAWS

KEYSTONE Home Workshop Circular Saws (for Metal)

4-INCH SIZE
K-4-M

6-INCH SIZE
K-6-M

Made by Disston for home workshop machines. Used for sawing soft brass, copper, and soft metal alloys.

Number	Diameter	Center Hole	Thickness	Points to Inch	Price
K-4-M	4″	½″	1/16″	7	$1.40 Ea.
K-6-M	6″	½″, ⅝″	3/64″	10	2.00 Ea.

Packed one in corrugated container.

KEYSTONE HOME WORKSHOP

Band Saws

For Wood

Dependable, made-by-Disston, popular priced band saws for cutting wood. Made for standard home workshop machines. Set, sharpened and joined ready for use.

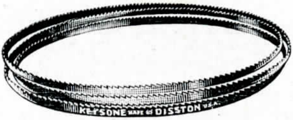
FOR WOOD

No.	Lengths	Widths	Make of Machine	Price
K-42	4′ 1½″	3⁄16″, ¼″	Portable Power (Power King 8″); Shaw Tool Co. (8″)	$1.00 Ea.
K-46	4′ 6″	3⁄16″, ¼″	Gray (Superior 8″); Wallace No. 34 (4″)	1.00 Ea.
K-48	4′ 8″	3⁄16″, ¼″, 5⁄16″, ⅜″	Herbert (Wood Wizard 9″)	1.00 Ea.
K-51	5′ 1½″	3⁄16″, ¼″, 5⁄16″, ⅜″	Walker-Turner (Driver 10″)	1.00 Ea.
K-56	5′ 6″	3⁄16″, ¼″, 5⁄16″, ⅜″	Delta (10″)	1.00 Ea.
K-65	6′ 5½″	3⁄16″, ¼″, 5⁄16″, ⅜″	Boice-Crane (12″); Champion (12″); Delta (12″); Ephrata (12″); Duro (12″); Hutchinson (12″); Heston & Anderson No. 11 (12″); Portable Power (Power King 12″); Gray (Superor 12″); Walker-Turner (Driver 12″)	1.00 Ea.
K-67	6′ 7″	3⁄16″, ¼″, 5⁄16″, ⅜″	Herbert S-312 and H-312 (Wood Wizard 12″)	1.00 Ea.
K-72	7′ 2″	3⁄16″, ¼″, 5⁄16″, ⅜″	Utility Mfg. Co. (12″); Woodworking Machine (14″); Heston & Anderson No. 1 (14″)	1.05 Ea.
K-76	7′ 6″	3⁄16″, ¼″, 5⁄16″, ⅜″	Boice-Crane (14″); Parks Woodworking (14″); Wallace No. 40 (14″); Heston & Anderson No. 50 (12″); S. & B. (12″)	1.10 Ea.
K-79	7′ 9½″	3⁄16″, ¼″, 5⁄16″, ⅜″	Delta (14″)	1.10 Ea.
K-85	8′ 5″	3⁄16″, ¼″, 5⁄16″, ⅜″	Heston & Anderson No. 14 (14″); S. & B. (16″)	1.20 Ea.

Saws packed one in a corrugated container.

KEYSTONE HOME WORKSHOP

Band Saws—Continued



For Soft Metal and Brake Lining, Fibre, etc.

Band Saws that will stand up to the work. Popular priced. Made for standard home workshop machines. Set, sharpened and joined, ready for use. For soft metal, brake lining, fibre, etc.

No.	Lengths	Widths	Make of Machine	Price
K-42X	4′ 1½″	¼″	Portable Power (Power King 8″); Shaw Tool Co. (8″)	$1.00 Ea.
K-46X	4′ 6″	¼″	Gray (Superior 8″); Wallace No. 34 (4″)	1.00 Ea.
K-48X	4′ 8″	¼″, ⁵⁄₁₆″	Herbert (Wood Wizard 9″)	1.00 Ea.
K-51X	5′ 1½″	¼″, ⁵⁄₁₆″	Walker-Turner (Driver 10″)	1.00 Ea.
K-56X	5′ 6″	¼″, ⁵⁄₁₆″	Delta (10″)	1.00 Ea.
K-65X	6′ 5½″	¼″, ⁵⁄₁₆″	Boice-Crane (12″); Champion (12″); Delta (12″); Ephrata (12″); Duro (12″); Hutchinson (12″); Heston & Anderson No. 11 (12″); Portable Power (Power King 12″); Gray (Superor 12″); Walker-Turner (Driver 12″)	1.00 Ea.
K-67X	6′ 7″	¼″, ⁵⁄₁₆″	Herbert S-312 and H-312 (Wood Wizard 12″)	1.00 Ea
K-72X	7′ 2″	¼″, ⁵⁄₁₆″	Utility Mfg. Co. (12″); Woodworking Machine (14″); Heston & Anderson No. 1 (14″)	1.05 Ea.
K-76X	7′ 6″	¼″, ⁵⁄₁₆″	Boice-Crane (14″); Parks Woodworking (14″); Wallace No. 40 (14″); Heston & Anderson No. 50 (12″); S. & B. (12″)	$1.10 Ea.
K-79X	7′ 9½″	¼″, ⁵⁄₁₆″	Delta (14″)	1.10 Ea.
K-85X	8′ 5″	¼″, ⁵⁄₁₆″	Heston & Anderson No. 14 (14″); S. & B. (16″)	1.20 Ea.

Saws packed one in a corrugated container.

KEYSTONE HOME WORKSHOP

Alloy Steel Jointer Knives

A special, Disston-made, alloy steel Jointer Knife for home workshop jointers. Supplied in sets of three knives. Ground, beveled and sharpened ready for use.

No.	Size			Make of Machine	Price
	Length	Width	Thickness		
K-40	4"	5/8"	3/32"	Duro Portable Power	$2.00 Set
K-40	4"	5/8"	1/8"	Boice-Crane	2.00 Set
K-40	4"	19/32"	3/32"	Delta—Walker-Turner	2.00 Set
K-40	4"	11/16"	.085"	Workace	2.00 Set
K-40	4"	23/32"	1/8"	Herbert (Wood Wizard)	2.00 Set
K-40	4"	7/8"	1/8"	Hutchinson	2.00 Set
K-44	4 1/4"	9/16"	3/32"	Walker-Turner (Driver)	2.00 Set
K-44	4 1/4"	23/32"	1/8"	Herbert (Wood Wizard)	2.00 Set
K-60	6"	7/8"	1/8"	Boice-Crane Heston & Anderson	2.85 Set

Packed one set (three knives) in envelope.

KEYSTONE HOME WORKSHOP

Sabre Blades

Keystone Home Workshop Sabre Blades are made in three types—one for Wood, one for Metal, and one for Brake Lining. All are set and sharpened ready for use.

FOR WOOD

No.	Length	Width	Thickness	Points to Inch	Price
K-9	6"	{3/16", 1/4" 5/16", 3/8"}	.040	9	$0.90 Doz.

Packed one dozen each width in envelope.
Also packed one dozen assorted (3 each of four widths) in envelope.

FOR METAL

K-19	5 1/2"	5/16"	.025	19	$2.40 Doz.

Packed one-half dozen in envelope.

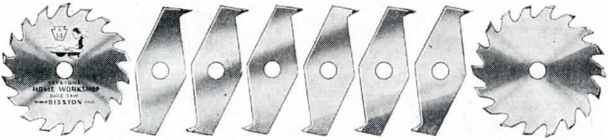
FOR SOFT METAL, BRAKE LINING, FIBRE, ETC.

K-9X	6"	5/16"	.042	9	$1.20 Doz.

Packed one dozen in envelope.

KEYSTONE HOME WORKSHOP

Groovers or Dado Cutters



4-INCH SIZE

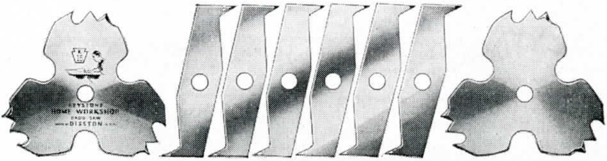
A Disston-made, popular-priced groover or dado cutter for home workshop machines. Supplied in sets consisting of 2 outside and 6 inside cutters. Cuts 1/16″ to ½″ by 1/16″.

No.	Diameter	Center Hole	Kerf Outside	Kerf Inside	Price
K-14	4″	½″	1/16″	1/16″	**$3.00 Set**

Packed one set (2 outside, 6 inside cutters) in a corrugated container.

K-14	4″	½″	Outside Cutter	$0.60 Ea.
K-14	4″	½″	Inside Cutter	.30 Ea.

Packed singly in envelope.



5½-INCH SIZE

A rugged, smooth-running groover or dado cutter of special design made by Disston for home workshop service. Supplied in sets of 2 outside and 6 inside cutters. Cuts 3/32″ to 9/16″ by 1/16″.

No.	Diameter	Center Hole	Kerf Outside	Kerf Inside	Price
K-15	5½″	½″, ⅝″, ¾″	3/32″	1/16″	$5.00 Set

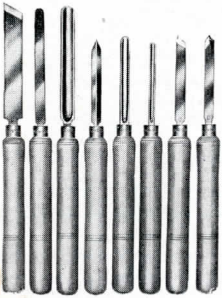
Packed one set (2 outside, 6 inside cutters) in corrugated container.

K-15	5½″	½″, ⅝″, ¾″	Outside Cutter	$1.30 Ea.
K-15	5½″	½″, ⅝″, ¾″	Inside Cutter	.40 Ea.

Packed singly in envelope.

KEYSTONE HOME WORKSHOP

Wood Turning Chisels and Gouges



Fine lathe tools made by Disston for home workshop service. Blades of fine tool steel with strong, forged tang. Each chisel hardened, ground with correct bevel and polished. 9-inch hardwood handles. Brass ferrules. Handles lacquered.

No.	Pattern	Length Handle	Length Chisel	Price		
				Complete	Blade Only	Handle Only
K-1	½″ Parting (⅛″ thick)	9″	4⅜″	$0.65	$0.45	$0.25 Each
K-1	½″ Round Nose	9″	6⅛″	.65	.45	
K-1	½″ Spear Point	9″	4⅜″	.65	.45	
K-1	¼″ Gouge	9″	4⅜″	.65	.45	
K-1	½″ Gouge	9″	4⅜″	.65	.45	
K-1	½″ Skew	9″	4⅜″	.65	.45	
K-1	¾″ Gouge	9″	6⅛″	.90	.70	
K-1	1″ Skew	9″	6⅛″	.90	.70	

Packed ½ dozen of pattern (not assembled) in box.

COMPLETE SETS

K-1-S 8 Chisels and Gouges	½″ Parting; ½″ Round Nose; ½″ Spear Point; ¼″ Gouge; ½″ Gouge; ½″ Skew; ¾″ Gouge; 1″ Skew	$5.60 Complete Set of Eight
K-6-S 6 Chisels and Gouges	½″ Parting; ½″ Round Nose; ½″ Spear Point; ¼″ Gouge; ½″ Gouge; ½″ Skew	$3.90 Complete Set of Six

Packed in sets. Each set in display box.

HOMECRAFTING AS A HOBBY

In recent years home workshop activity has gained immeasurably in popularity as a form of recreation. The number of Homecrafters who have motorized workshops now perhaps rivals the number of enthusiasts who follow golf, or fishing, or gunning for recreation.

And what could be a more admirable way to utilize one's leisure time than to have a hobby which encourages and teaches one to *make things* of value for himself and his home.

To help the user of motorized home workshop machines get the most from his equipment, Henry Disston & Sons, Inc., Philadelphia, Pa., has developed an extensive line of saws and other tools for the motorized workshop. These Disston-made products are sold by good hardware stores under the brand name of "KEYSTONE HOME WORKSHOP." These Keystone Specialties will be found described in detail on pages 2–8 of this folder.

The following information has been prepared to assist the homecrafter in the *use* and *care* of the Saws, Knives, and other tools so vital to the success of most homecraft projects.

Facts About Circular Saws

KEYSTONE Home Workshop Circular Saws are made in four types of flat ground—a cross-cut, a rip and two types of combination. There is also a smooth-cutter, hollow ground combination saw. The diagrams reproduced below show the difference in the teeth of the respective types:

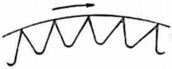


Fig. 1—This is a section of standard cross-cut (K-41) teeth, for cutting *across* the grain.

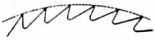


Fig. 2—This is a section of standard rip (K-121) teeth, for cutting *with* the grain.

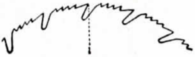


Fig. 3—Section of Combination Saw (K-321) showing groups of four cutting teeth and one raker. This saw is for ripping, cross-cutting and cutting diagonally.

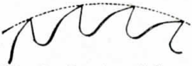


Fig. 4—Section of Combination Saw (K-851). This saw is for ripping, cross-cutting, cutting with the grain, or diagonally to the grain.

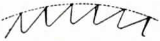


Fig. 5—Section of hollow ground circular saw (K-61) which cuts across, or with the grain, or diagonally, and requires practically no sanding.

Be sure you use the right saw for your work; a rip saw for cutting *with* the grain; a cross-cut for cutting *across* the grain; or a combination saw which rips and cross-cuts, but is especially valuable for diagonal cutting.

The K-851 Combination Circular Saw will cut fast either with, across or diagonal to the grain of the wood. All of the teeth are beveled, no rakers to bother with; hence this saw is easily kept in order; simply bevel the teeth both front and back, and set them the same as they were when new.

The **KEYSTONE** Hollow Ground Circular Saw (K-61) is especially recommended for smooth cutting that will require practically no sanding. It cuts with the grain, across the grain or diagonally. To obtain best results feed the work slowly.

How to Refit KEYSTONE Home Workshop Circular Saws

Jointing—The first step in refitting a circular saw is jointing; getting all the teeth the same length. This is done by turning the saw backward slowly by hand while holding a file or emery stone level with the table, and pressed lightly and squarely against the saw teeth. Do this until *every* tooth in the saw shows a bright spot produced by the file on stone.

Shaping Teeth—After jointing, put saw in filing clamp and shape teeth as near to the original shape as possible. Have all gullets of even depth and width. Use a Disston 6″ or 7″ Taper File for cross-cut (K-41) and combination (K-321) saw; and a Disston 6″ or 7″ Mill File with one rounded edge for rip saws (K-121 and K-111) and combination (K-851) saw. This file should also be used on the 10-inch K-41.

Setting Teeth—After teeth have been shaped, they should be set with a Disston No. 18 Triumph Saw Set. Care should be taken NOT to carry the set down too far on the teeth. If this is done, the body of the blade (below the gullets) will be distorted. Be sure each tooth is being set in the *correct* direction. Follow the original set in saw. After setting, any teeth not in alignment should be corrected by another application of the saw set.

Filing—Saws are sharpened at factory for all around cutting. If your work is mostly soft wood, you may carry a wider bevel on the teeth. In filing, do not reduce the length of the teeth; simply bring them up to a sharp point. Have all teeth the same shape with gullets of even depth and width. Do not file sharp corners or nicks in the bottom of gullets.

Bevel the teeth in cross-cut saws (K-41) on both the front and back edges. More bevel, however, is filed on the front than on the back of the tooth. Give rip saws (K121 and K-111) a very slight bevel on the back of the teeth. In filing any Home Workshop saw, take care that the bevel does not run down into the bottom of the gullet.

Refitting KEYSTONE Home Workshop Flat Ground Combination Saws

In filing flat ground combination saw (K-321), use the same method for beveling the cutting teeth as used in sharpening cross-cut saws. This combination saw has raker, or cleaner teeth for cleaning out the material left by cutting teeth. Consequently, the points of these raker teeth should be filed $\frac{1}{64}$" shorter than the points of the cutting teeth. After filing to $\frac{1}{64}$" shorter, then file these rakers square across so they will act like a plane and present a chisel-like edge, being careful not to reduce the length. Do not set these raker, or cleaning teeth. They must be left straight. Combination Saw (K-851) has a special shaped tooth which should be filed with a mill file with one round edge. Care must be taken to preserve the original shape and hook of the teeth. Keep them as near the original shape as possible. This saw must be set, one tooth to right, the next to left.

Refitting KEYSTONE Hollow Ground Circular Combination Saws

The teeth of these saws (K-61) require no set—setting the teeth will destroy their smooth cutting qualities. In sharpening, the teeth should be beveled to the same degree of bevel as the saw was when new. This will produce a smooth cut in both hard and soft woods. In resharpening use 7-inch cant file.

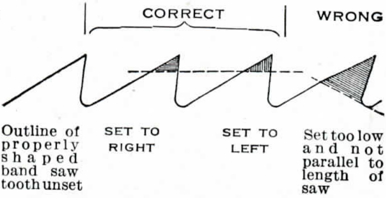
Refitting Sabre Blades

Wood-cutting Sabre Blade (K-9) may be refitted by setting and filing similar to blade when new. No attempt should be made to refit sabre blades for metal (K-19) or sabre blades for brake lining (K-9X) because they are made too hard to file. They can be replaced new at a nominal cost.

How to Refit KEYSTONE Home Workshop Wood Band Saws by Hand

Teeth may be set with a Disston No. 28 Triumph Saw Set, in the same way that hand saw teeth are set. When setting is necessary, it should be done before the teeth are filed. It should be remembered that if the saw is to do only straight line cutting, best results are obtained by the least set possible. In this connection, remember that sufficient set is necessary to clear the body of blade in the cut, particularly when cutting on curved lines.

It is usual to "joint" the saw slightly before beginning to file the teeth. This is done


CORRECT
WRONG
Outline of properly shaped band saw tooth unset
SET TO RIGHT
SET TO LEFT
Set too low and not parallel to length of saw

Proper shape setting of wood band saw teeth by lightly rubbing a flat file over the tops of the teeth to make them all of a uniform height. Disston's Adjustable Band Saw Clamp, No. 4 should be used for hand sharpening. Place the saw in position so that it is supported throughout its length on the same level while filing. The clamp will hold a section of approximately 50 teeth. The saw is then moved so that one section after another is worked on until the entire length of the saw has been sharpened.

Before starting to file, consider the shape of the teeth shown in the diagram on page 11. Keep the teeth in your saw to this shape. Use a six-inch Disston band saw taper file. Place the file in the gullet between the teeth and allow it to find its own bearing against the teeth it touches. Hold the file in a horizontal position. File straight across the saw (at right angles to the blade raising file on the back stroke).

Refitting KEYSTONE Home Workshop Metal Cutting Band Saws

As these saws are made with hard tooth edge, one should not try to refit them. When too dull for use a new saw should be purchased.

Refitting KEYSTONE Home Workshop Groovers or Dado Cutters

4-inch-Size—The teeth on the outside and inside cutters should be fitted the same as when new. With the outside cutters, all teeth are set alternately, and both the outside and inside cutters should carry a light set to avoid making an irregular shape in bottom of cut.

All the pieces in the head should be jointed in position on mandrel to make an even diameter.

5½-inch Size—The teeth on the outside and inside cutters should be fitted as they were when new. The outside cutters have 3 sections of cutting teeth, each section containing 2 cutting teeth and 1 raker. Be sure that the inside cutters carry a light set so as to avoid an irregular shape in bottom of cut. Do not set the raker or cleaner teeth. Just file them straight across.

Care should be taken to see that your dado cutters fit snug on the mandrel stem. If the stem is worn, caused by putting on and removing saws, naturally the dado set will not fit snugly, hence you will not get an even bottom cut.

How to Sharpen KEYSTONE Home Workshop Jointer Knives

If the edges of your jointer knives become nicked, it will be necessary to grind them. Care must be taken not to overheat the delicate edge with the grinding wheel. Grind to a 30° bevel—keeping all knives the same width, after grinding and honing, in order to preserve balance. Knives may be honed on work bench as follows:

First—Place knife in upright position, bevel toward you. With stone flat on cutting *edge* of knife, at right angles to face, pass stone lightly from end to end once or twice to break the fash, or to put a light flat or "shiner" on the edge;

Then—Tilt knife back and rest on a small block so bevel is nearly horizontal. Holding stone about one degree off the bevel, hone with a continuous rotary motion against the cutting edge starting at one end and going to the other.

After passing from end to end two or three times—test edge for fash with finger; if any remains, pass hone lightly along edge, as first instructed, and continue honing until a keen edge is secured.

Sharpening KEYSTONE Home Workshop Wood Turning Chisels and Gouges

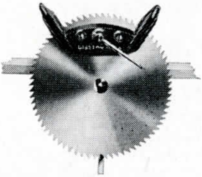
The grinding of different wood turning tools is about the same. The tool to be ground is held so as to bring the bevel flat on the stone. This angle is then maintained throughout the grinding. In the case of a gouge, since the tool is convex on the outside (and the bevel is on the outside), it will be necessary to roll the tool and at the same time work it from one side of the stone to the other. The rolling motion makes it possible to grind all parts, and working it from side to side, prevents the wearing of a hollow in the stone.

To hone a gouge an oilstone slip is used. Hold the slip in one hand and the gouge in the other. Two movements are necessary—one to work the stone back and forth, the other to roll the gouge from side to side. After some time, a burr will be seen to form. To remove this burr, rub the slip on that side several times, then repeat the entire honing operation until the gouge has been properly sharpened.

The grinding of a skew is somewhat different from that of the other tools, in that this tool has a bevel on both sides, and the cutting edge is not at right angles to the sides. The cutting edge should be kept parallel with the top of the stone. In honing the skew the same principle is carried out.

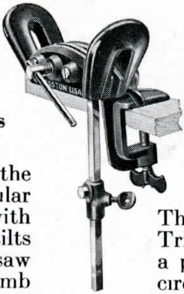
DISSTON Tools for Refitting Saws

Circular Saw Filing Vise No. 7



Showing how saw fits in Vise

Handy, well-built. Just the tool for filing small circular saws. Fastens to bench with thumb screw; elbow joint tilts vise to any angle. Place saw on movable bracket. Thumb screw raises or lowers saw to correct position for filing. Curved jaws grip rim of saw.



Disston Triumph Saw Set

The Disston No. 18 Triumph Saw Set gives a perfect set on small circular saws. The best tool for the purpose. No. 28 is best for narrow wood band saws.

Disston Band Saw Taper File

When filing KEYSTONE band saws, use Disston six-inch band saw taper file.

Disston Taper Files

Best adapted to filing teeth of cross-cut (K-41) and combination (K-321) saws. Use 6″ or 7″ size.

Disston Mill File—One Round Edge

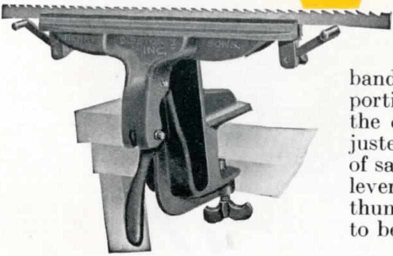
Will give best service for filing rip saws (K-121 and K-111) and combination saw (K-851); and 10-inch K-41 cross-cut saw. Use 6″ or 7″ size.

Disston Cant File

Should be used in filing Keystone Hollow Ground Combination Saw (K-61).

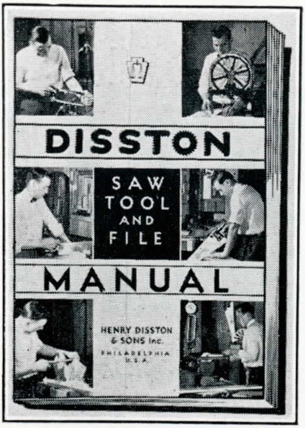
DISSTON Tools for Refitting Saws

No. 4 Saw Clamp



The Disston No. 4 Saw Clamp is used principally for filing narrow band and web saws. A supporting arm at each end of the clamp can be easily adjusted to the various widths of saws to be filed. Eccentric lever opens and closes the jaw; thumb-screw secures clamp to bench. Japan finish.

Free! to Owners of Home Workshops



Every user of tools around the home should have a copy of "The Disston Saw, Tool and File Manual," an illustrated manual on the selection, care and use of tools. It tells how to refit saws and contains other helpful information. Mailed FREE to anyone upon request to

HENRY DISSTON & SONS, INC.

Philadelphia, U. S. A.

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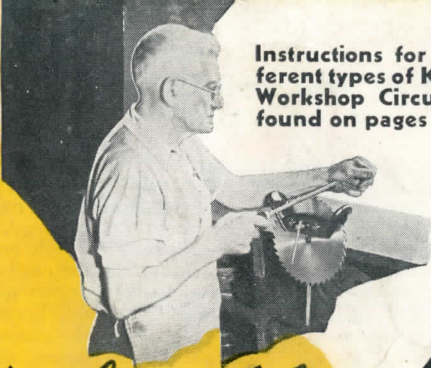

Instructions for refitting the different types of KEYSTONE Home Workshop Circular Saws will be found on pages 9 to 13.

Valuable Hints

regarding the use and care of

KEYSTONE SAWS AND TOOLS

for the Motorized Home Workshop